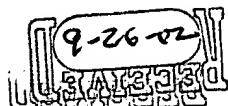


#6  
J. Douglas  
9/29/02**Official**PATENT APPLICATION  
Attorney Docket No. D/96602Q2

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

DK  
To  
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TMC  
10/21/02

Inventor(s): Robert J. Meyer et al.

Application No.: 09/362,020

Filed: 7/27/1999

Examiner: Twyler Marie Lamb

Confirmation No. 6310

Art Unit: 2622

Title: **NON-PRINTING PATTERNS FOR IMPROVING  
FONT PRINT QUALITY**

CERTIFICATE OF TRANSMISSION  
I hereby certify that this correspondence is being facsimile transmitted to the U.S. Patent and Trademark Office (Fax No. (703) 872-9314, on:

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Francie S. LePore

Sir:

**§116 RESPONSE AFTER FINAL**

In Response to the Office Action of August 27, 2002, Applicants have carefully considered the rejections of the Examiner in the above-identified application. In light of this consideration, Applicants believe that the claims remain allowable. Applicants respectfully request reconsideration of the rejection of the claims now pending in the application.

In the first Office Action of February 28, 2002, claims 1-7 where rejected under 35 U.S.C. §101 as not being within the statutory classes. Claims 1-4, 8, 9, 13-15, and 19-20 where rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,038,039 to Zeng (hereinafter Zeng). Claims 5-7, 10-12, and 16-18 where rejected under 35 U.S.C. §103(a) as being

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unpatentable over Zeng in view of U.S. Patent No. 5,459,828, to Zack et al. (hereinafter Zack).

In this second Office Action of August 27, 2002, claims 1-4, 8, 9, 13-15, and 19-20 stand rejected under 35 U.S.C. §102(e) as being anticipated by Zeng. Claims 5-7, 10-12, and 16-18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Zeng in view of Zack.

Grateful acknowledgement is herein made to the Examiner for withdrawing the interesting 35 U.S.C. §101 rejection of claims 1-7 as not being within the statutory classes. We are pleased that the Examiner agrees that the Applicants' claims are within the statutory classes.

In the Examiner's Response to Arguments in the current Office Action of August 27, 2002, it is stated "Applicant argues that Zeng does not teach auxiliary pixels. Zeng teaches utilizing fill-in pixels for edge smoothing which is substantially the same as the non-printing auxiliary pixels which affect their neighboring pixels." The Applicants must respectfully traverse. The fill-in pixels taught in Zeng are not the same as the auxiliary pixels taught by the Applicants. The Zeng fill-in pixels are intended to print. Auxiliary pixels do not effectively print. They are not the same.

Claims 1-4, 8, 9, 13-15, and 19-20 are rejected under 35 U.S.C. §102(e) as being anticipated by a U.S. Patent to Zeng. Zeng provides a scanner/printer system for smoothing the edges of text or line art and is described having a copyboard for an image original, a CCD, a PCI bus, edge smooth software and a laser printer. The edge smooth software adds variable size fill-in patterns of pixels to the image data scanned by the CCD at low resolution to smooth the edges of text or line art prior to printing at high resolution.

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Nowhere within Zeng is there mention or teaching of auxiliary pixels, either by name or by functional equivalence. Auxiliary pixels are thoroughly explained in the applicant's specification. They are non-printing pixels which never-the-less will have a print effect upon the original pixels which they neighbor by changing the charge distribution and thereby the toner pile distribution as will be well understood by one skilled in the art in view of the application. Please see pages 8-10 starting with lines 22-35, on page 8, and ending at line 5 of page 10. Please also see the discussion of Figures 4-6 for explanation of the operation of the auxiliary pixel in combination with the toner cloud to change the toner piles upon the substrate.

The edge smooth software as taught by Zeng is substantially the same as the Resolution Enhancement Technology (RET) prior art discussed in the application. The RET example provided in the application was an attempt to circumvent confusion over what constitutes the teaching provided by the applicant by contrasting that teaching against the prior art RET background. For example, please note at page 8 line 14 of the application: "It should be noted that the RET generated pixel 104 was retained in Figure 3 for illustrative purposes only, it is not required for the present invention and in a preferred embodiment may in fact be replaced by a suitable auxiliary pixel." An auxiliary pixel is not for edge smoothing so as to render an image to better please the human eye. An auxiliary pixel is the controlled arrangement of charge so as to better manipulate the depositing of toner piles on a photoreceptor or page.

The application goes to considerable length to describe just what constitutes an auxiliary pixel. None of that teaching is found in Zeng. None of the citations the Examiner has provided to Zeng teach the Applicants' invention of non-printing pixels (i.e. pixels which in effect do not print). These non-printing pixels are referred to as auxiliary pixels as acknowledgment in their role to "encourage a toner close enough to the photoreceptor to mitigate the spreading effect of the surrounding cleaning field". (See page 9 line 28 of the application). As Zeng neither teaches, names, or even hints at auxiliary pixels or any of the Applicants' teaching of the invention it cannot serve as a 35 U.S.C. §102 reference. A §102 "anticipation" rejection requires that a single

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reference teach (i.e., identically describe) each and every element of the rejected claim. That is, §102 anticipation requires that all of the elements and limitations of the claim are found within a single prior art reference. That is the unequivocal current and controlling view of the Federal Circuit. Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 220 U.S.P.Q. 193, 198 (Fed. Cir. 1983); Atlas Powder v. E. I. DuPont, 750 F. 2d 1569, 224 U.S.P.Q. 409 (Fed. Cir. 1984); Jamesbury Corp. v. Litton Industrial Products, 756 F.2d 1556, 225 U.S.P.Q. 253 (Fed. Cir. 1985); Carella v. Starlight Archery and Pro Line Co., 804 F.2d 135, 138, 231 U.S.P.Q. 644, 646 (Fed. Cir. 1986); and Davis v. Loesch, 27 U.S.P.Q. 2d 1440, 1445 (Fed. Cir. 1993), citing Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 U.S.P.Q. 2d 1913, 1920 (Fed. Cir.), cert. denied, 493 U.S. 853 (1989). To anticipate a claim under 35 U.S.C. §102, a prior art reference must disclose each and every element claimed. See, e.g., Leinoff v. Louis Milona & Sons, Inc., 220 U.S.P.Q. (BNA) 845 (Fed. Cir. 1984); Connell v. Sears, Roebuck & Co., 220 U.S.P.Q. (BNA) 193 (Fed. Cir. 1983).

Rejections under 35 U.S.C. §102 are proper only when the claimed subject matter is identically disclosed or described in the prior art. In other words, to constitute an anticipation, all material elements recited in a claim must be found in one unit of prior art. *In re Marshall*, 198 U.S.P.Q. 344 (CCPA 1978). Zeng teaches edge smoothing. The Applicants teach using auxiliary pixels to change the distribution of toner on a substrate or photoreceptor. Zeng does not. The fill-in pixels taught in Zeng are not the same as the auxiliary pixels taught by the applicant. Therefore claims 1-4, 8, 9, 13-15, and 19-20 are not anticipated. Allowance of claims 1-4, 8, 9, 13-15, and 19-20 is respectfully requested.

The Examiner has rejected dependent claims 5-7, 10-12, and 16-18 under 35 U.S.C. §103(a) as being unpatentable over Zeng in view of a U.S. Patent to Zack. As claims 5-7, 10-12, and 16-18 depend from independent claims deemed allowable they should be allowable as well. Allowance of claims 5-7, 10-12, and 16-18 is respectfully requested.

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It is respectfully submitted that the present set of claims are patentably distinct over the cited references. In the event the Examiner considers personal contact advantageous to the disposition of this case, he is hereby requested to call the undersigned attorney at (585) 423-6918, Rochester, NY.

Respectfully submitted,



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